

28789

S/106/61/000/010/001/006  
A055/A127

Reception of signals with phase-difference keying

from system no. 42 is briefly described. The system no. 41 is the only one with which auto-correlation detection cannot be used. The "Kineplex"-system of Doelz, Heald and Martin [Ref. 3: Binary data transmission techniques for linear systems. Proc.IRE, 1957, no. 5] is briefly mentioned. 2) Synchronous detection. 3) Reception method where coherent voltages are added to the signal, with subsequent detection of the envelope of the resulting oscillations. 4) Reception method where adjacent signal sendings are added, with subsequent detection of the envelope of the resulting sum. 5) Reception method with direct amplitude- or frequency detection of signals. (Amplitude detection can practically be used only with the binary no. 21 system.) To compare the noise immunity of the various phase-difference keying methods when different reception methods are used, the author introduces a criterion  $\epsilon$  which he calls "phase stability" and which designates the maximum permissible index of parasitic phase modulation of signal vectors (angle of their deviation from the normal position under the action of interferences and distortions); when this index is exceeded, errors arise in reception. The other parameter introduced by the author is  $K = B/f_p = \log_2 N$ , as appearing in his earlier article. This parameter characterizing the efficiency of the systems. The following magnitude proves convenient for estimations:

$$Q = KE/90^\circ.$$

(5)

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It can be named "relative quality" of the phase-difference keying systems. The values of  $\epsilon$  and  $Q$  for all the systems described or mentioned in the article are grouped in a table. Here are their values for some of these systems:

System no.	Synchron. detection		Auto-cor-rel. de-tection		Adding of signal and coh. voltages		Adding of adja-cent sign. sendings		Amplitude and fre-quency de-tection	
	$\epsilon$	$Q$	$\epsilon$	$Q$	$\epsilon$	$Q$	$\epsilon$	$Q$	$\epsilon$	$Q$
№ 21	90°	1	45°	0,5	90°	1	45°	0,5	30°	0,33
№ 22	30°	0,33	30°	0,33	60°	0,67	30°	0,33	19°	0,21
№ 23	30°	0,33	30°	0,33	60°	0,67	30°	0,33	25°	0,28
№ 24	45°	0,5	22,5°	0,25	45°	0,5	22,5°	0,25	18°	0,2
№ 25	45°	0,5	45°	0,5	45°	0,5	45°	0,5	40°	0,45
№ 26	45°	0,5	22,5°	0,25	45°	0,5	22,5°	0,25	—	—
№ 31	30°	0,5	15°	0,25	60°	1	30°	0,5	19°	0,32
№ 32	45°	0,75	22,5°	0,38	45°	0,75	22,5°	0,38	18°	0,2
№ 33	45°	0,75	22,5°	0,38	45°	0,75	22,5°	0,38	—	—
№ 41	45°	1	—	—	45°	1	—	—	—	—
№ 42	45°	1	22,5°	0,5	45°	1	22,5°	0,5	—	—
Kineplex	22,5°	0,5	22,5°	0,5	22,5°	0,5	22,5°	0,5	—	—

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There are 6 figures, 2 tables and 4 Soviet-bloc and 2 non-Soviet-bloc references. The English-language references are: Doelz, Heald, Martin. Binary data transmission techniques for linear systems. "Proc.IRE", 1957, no. 5; Tucker. A two-phase communication system. "Electronic Engineering", 1948, May-June.

SUBMITTED: May 3, 1961

Card 4/4

BOBROV, N.S., podpolkovnik, kand.filosofskikh nauk

For a profound study of Lenin's ideas in the field of natural  
science. Voen.-med. zhur. no. 6:92-93 Je '60. (MIRA 13:7)  
(LENIN, VLADIMIR IL'ICH, 1870-1924)

PHASE I BOOK EXPLOITATION SOV/1150

Bobrov, Nikolay Vasil'yevich

Radiopriyemnyye ustroystva (Radio Receiving Systems) Moscow, Gosenergoizdat, 1958. 447 p. (Series: Massovaya radiobiblioteka. Uchebnaya seriya, vyp. 292) 100,000 copies printed.

Ed.: Shul'gin, K.A.; Tech. Ed.: Voronin, K.P.; Editorial Board of Series: Berg, A.I., Burlyand, V.A., Vaneyev, V.I., Genishta, Ye.N., Dzhigit, I.S., Kanayeva, A.M., Krenkel', E.T., Kulikovskiy, A.A., Smirnov, A.D., Tarasov, F.I., Chechik, P.O., Shamshur, V.I.

**PURPOSE:** This book is intended as a textbook for radio amateurs.

**COVERAGE:** The book deals mainly with the physical processes occurring in various stages of radio receivers. It also provides methods for calculating the parameters of individual stages. The reader is assumed to have a basic knowledge of mathematics, physics, electricity and radio, vacuum tubes and low-frequency amplifiers on the level of grade nine or ten of [Soviet] secondary schools. He is also expected to have some practical experience in adjusting and

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assembling superheterodyne receivers. Some auxiliary material together with explanations of some fundamental problems in radio, particularly as regards L-F amplifiers, are given to help the reader use the book without reference to any other textbook. The author considers his book a first attempt at a new type of textbook for an independent study of radio engineering. The author thanks N.M. Izyumov, A.A. Kulikovskiy, Ye.A. Levitin, and K.A. Shul'gin for their help. There are no references.

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2-24-59

9.3240

S/108/62/017/009/003/003  
D288/D308

AUTHOR:

Bobrov, N. V., Member of the Society (see Association)

TITLE:

Estimation of the range of practical application of matching in valve and crystal amplifiers

PERIODICAL:

Radiotekhnika, v. 17, no. 9, 1962, 49 - 59

TEXT:

The general problem of optimal matching of tuned circuits in valve and transistor amplifiers is considered. The conductance of the tuned circuit is given by  $g = 1/\rho Q$ , where  $Q = \rho/r$  (ratio of parallel to series resistance at resonance). The voltage gain of one stage is derived in terms of  $g$ , valve or transistor output conductance and input conductance of the following stage  $G_1$  and  $G_2$ , slope  $S$  and the load-matching coefficient  $P_a$ . It is shown to be desirable to make  $G_2/g$  as high as possible. A formula for the limit value of  $G_2/g$  is given, below which matching of the circuit by tapping the active device into it is pointless. The importance of  $P_a$  is discussed.

Card 1/2



Estimation of the range of practical ... S/108/62/017/009/003/003  
D288/D308

ed. 7 normalized graphs are given which enable the optimal choice of matching to be made for the desired amount of selectivity and gain; they show the relationships between  $G_2/S$ ,  $G_2/G_1$ ,  $P_a$ , voltage gain and  $Q_{max}$  :  $Q_{working}$ . ✓B

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications, imeni A.S. Popov) [Abstractor's note: Name of Association taken from first page of journal]

SUBMITTED: March 13, 1961 (initially)  
October 20, 1961 (after revision)

Card 2/2

ACCESSION NR: AP4038601

S/0108/64/019/005/0037/0048

AUTHOR: Bobrov, N. V. (Active member)

TITLE: Design of electron-tube and transistorized resonance amplifiers

SOURCE: Radiotekhnika, v. 19, no. 5, 1964, 37-48

TOPIC TAGS: amplifier, electron tube amplifier, transistorized amplifier, resonance amplifier, amplifier design

ABSTRACT: In meter- and decimeter-band electron-tube amplifiers as well as in all transistorized amplifiers, the external conductance often exceeds the resonant-circuit conductance. In this case, if a required gain is lower than the maximum possible gain under matched conditions, a certain minimum passband can be ensured (formulas supplied). A loss of 20-50% in the passband may be necessary to obtain the required gain. With a specified passband, the maximum possible gain depends on the relations between the Q-factor, conductances, and passband

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ACCESSION NR: AP4038601

(formulas supplied). The best method of increasing the gain is to increase the resonant-circuit characteristic impedance. Passband broadening by decreasing the Q-factor or by increasing the tube output conductance results in an equal lower value of attainable gain. By increasing the input conductance of the next-stage tube, the lowest value of the gain can be achieved. Orig. art. has: 10 figures and 46 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi  
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 19Jul62

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 000

Card 2/2

BOBROV, N.V.

Conditions of maximum amplification of a tuned amplifier with a given passband. Radiotekhnika 20 no.7:28-30 Ji '65.

1. Peystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova. (MIRA 18:8)

BOHROV, O.

Our literary periodical. Prof.-tekh. obr. 12 no.7:28 J1 '55.  
(MIRA 8:9)

1. Pomoshnik direktora po kul'turno-vospitatel'noy rabote  
zheleznodorozhnogo uchilishcha no.1, Kiyev  
(Periodicals)

ZINOV'YEV, A.; SAYENKO, I.; BOBROV, O.

Drilling underwater blastholes in rock. Rech. transp. 20  
no.12:41-42 D '61. (MIRA 14:12)

(Dredging)  
(Rock drills)

FIL'CHAKOV, V.I.; BOBROV, O.D., inzh.

Manufacture of air-entrained ash and sand lightweight tiles.  
Stroi. mat. 8 no.2:23-25 r' '62. (MIRA 15:3)

1. Nachal'nik laboratorii Stupinskogo zavoda yacheistyykh  
betonov.

(Tiles)

BARANOV, AT., kand.tekhn.nauk; BAKHTIYAROV, K.I., inzh.; BOBROV, O.D.,  
inzh.

The strength and durability of cellular concretes. Bet.i zhel,-  
bet. 8 no.9:397-402 S '62. (MIRA 15:12)  
(Lightweight concrete)



MIRONOV, S.A.; BARANOV, A.T.; BOBROV, O.D.

Theoretical requirements of the technology of production of heat-insulating gas concretes. Inzh.-fiz. zhur. 7 no.1:117-121 Ja'64.

(MIRA 17:2)

1. Institut betona i zhelezobetona, Moskva.

BOBROV, O.D.; ADAMYAN, A.P.; KHAYMOVICH, L.I., red.

[Technology and properties of insulating gas silicates; practices of the Volgograd Combine of Sand-Lime Building Materials] Tekhnologiya i svoistva teploizoliatsionnykh gazosilikatov; iz opyta raboty Volgogradskogo kombinata silikatnykh stroitel'nykh materialov. Volgograd, Volgogradskoe knizhnoe izd-vo, 1963. 25 p, (MIRA 17:5)

BOBROV, O.I., inzh.

Conical counterboring machine. Gor.zhur. no.2:77 F '64.  
(MIRA 17:4)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR,  
g. Novosibirsk.

BOBROV, O.M., prepodavatel'

Textbook on applied economics ("Economics and organization of signaling and communications", by E.V.Afanas'ev and others).  
Reviewed by O.M.Bobrov, Avtom., telem.i svyaz' 4 no.6:47 Je '60.

1. Kiyevskiy elektromekhanicheskiy tekhnikum zheleznodorozhnogo transporta im. N.Ostrovskogo.

(Afanas'ev, E.V.) (Businier, M.I.) (Mitin, A.T.)

(Khibinskaia, F.A.)

(Railroads--Communication systems)

1-11 AND 1-12. SUBJECT										1-13 AND 1-14. SUBJECT									
PROCESSING AND PROPERTIES INDEX																			
<p><i>Extracts obtained in the manufacture of etheral oils from conifers. P. A. BOBROV. <i>Trudy Vysokoi Nuch. Issledovaniiskii Inst. Krasnodarsk</i> 4, 76-80(1928).—The natr.</i></p> <p>under investigation is a by-product in the manuf. of fir-tree oil obtained by treatment of conifers with steam. It is sol. in water and has marked tanning qualities. After hydrolysis continued for 80 hrs. ether extd. from this soln. phenols, catechol and a solid of sweet taste. The rest of the aq. soln. gave reactions of aldehydes, reacted with phenylhydrazine, reduced Ag and Cu salts, was optically active and was sweet in taste. It is regarded as a carbohydrate. From results of detns. of carbohydrates with Fehling soln. it was concluded that its liberation from a higher complex is due to hydrolysis. Another product of hydrolysis was a ppt. from which ether extd. phenols (catechol and resorcinol), acids (protocatechuic and gallic) and a neutral substance. The tanning qualities of the exts. were tested by reactions with lead acetate, gelatin and glue and powd. hide. As the results showed tanning qualities of the catechol group, actual tanning of pieces of hide was undertaken by shaking them with 0.2-4% solns. of the tanning substances; treatments with hot water and 5% AcOH showed successful tanning.</p> <p style="text-align: right;">J. G. TOLPIN</p>																			
<p>ASR-31.4 METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>SEARCHED INDEXED</p>										<p>REVIEWED</p>									
<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p>										<p>21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40</p>									

26

*ca*

Composition of gum-resin. P. Bonkov. *Zhur. Prikladn. Khimii* 2, 403-27 (1929).—Gum-resin produced in the district of Vyatka (Russia) was analyzed by dissolving in Et<sub>2</sub>O and extg. fractionally with weak Na<sub>2</sub>CO<sub>3</sub> and NaOH solns. in the cold. The following fractions were obtained: (1) Residue insol. in Et<sub>2</sub>O 0.90%. (2) Acidic substances extd. with 1% Na<sub>2</sub>CO<sub>3</sub> soln. 43.4-44.5%. They contained 73.67% resin acids, 21.7% fatty acids, and 0.8% oxy-acids. (3) Phenolic substances extd. with 2% NaOH soln. 6.00-8.17%. They contained pyrocatechol and many unidentified complex phenols. (4) Neutral complex. 39.1-37.8%. They contained 1.7% (by wt. of original sample) of saponifiable substances which were detd. by heating with alc. KOH for 1 hr. on a water bath. These substances had an acid no. 145 and Ac. coeff. 47. By heating with H<sub>2</sub>SO<sub>4</sub> at 250° only traces of ethers were found. 0.03% aldehydes were detected with Na<sub>2</sub>SO<sub>3</sub> and subsequent decoupling of the complex complex with H<sub>2</sub>SO<sub>4</sub> followed by extn. with Et<sub>2</sub>O. Absence of primary and secondary alks. was shown by testing with metallic Na and phthalic and acetic anhydrides. Small quantities of terpenes were present. By fractional distn. in high vacuum a substance (b.p. 343°, d<sub>4</sub> 0.9782, n<sub>D</sub><sup>20</sup> 1.5415), probably abietene, was sepd. Neutral substances are of high mol. wt. and easily decomp. even on distn. in high vacuum. Com. retorts for mfg. gum-resin have a lower ext. tube so that the product is removed not necessarily by vaporization only. Gum-resin industry is different from dry distn. of wood and Klason's theory (C. A. 9, 423) is not strictly applicable to it. V. KALICHEVSKY

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p><i>ca</i></p> <p><b>Gum resin production and dry distillation.</b> P. BOURGIV. <i>Trudov Vysshii Nauch. Issledovatel'skii Inst. Krasnodarskiy S. 74-80(1920).</i>—A number of processes resulting in change of products take place in gum resin production. The construction of app. permitting the primary products to escape before further decompn. is of great importance. B. does not agree with the theory of Clason that the primary products are volatile in high vacuum. The retort used for gum resin production in the Viatka region has always an exit for non-volatile but fusible products before they are decompd. by heat. These are not obtainable in ordinary dry distn. of wood and B. therefore differentiates the latter from thermal decompn. of wood, which is the process used by him. A number of expts. with cellulose, lignin, sawdust, combustible slate, and peat were carried out in which the material was heated to 345-76°. Lignin gave mostly products non-volatile in a high vacuum; half of them are sol. in Et<sub>2</sub>O, the rest insol. in the usual org. solvents, sol. in NaOH, less sol. in soda. As to the ether-sol. products it is known only that they are a mixt. of weak acids and phenols. Cellulose gave water-sol. products (except charcoal), of sweet-caustic taste; 42-45% of the cellulose products were non-volatile. They reduced an ammoniacal soln. of silver oxide, gave a cuprous ppt. with Fehling soln. and showed reaction for carbohydrates with alkalies and with phenylhydrazine. First they could not be fermented but after treatment with dil. acids they did. The volatile matter contained considerable quantities of furfural and hydroxymethylfurfural. Wood and peat gave similar products. The process is not changed by application of steam and vacuum but the yields are increased. Katin would probably give also solid infusible products, but for technical reasons this was not tried.</p> <p style="text-align: right;"><i>26</i></p> <p style="text-align: right;">J. G. TOLPIN</p>																			
<p>ASH-11A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>Thermal decomposition of wood with superheated steam. P. A. Bobrov. <i>Trudy Tsvet. Nauch.-Issledov. Zashch. Tsvet. Nauch. S. S. R., Destructive Distn. of Wood</i> 5, 8-41 (1934); cf. <i>Ibid.</i> 2, (1933); C. A. 28, 2890; B. and Gurvich, <i>J. Applied Chem.</i> (U. S. S. R.) 6, (1933).—Spruce, birch, cedar and other cellular materials in forms of sawdust, chips and logs were destructively distd. with superheated steam, and the ether-extd. distillate and the nonvolatile residue examd. The distn. was made in a 30-l. vertical, water-jacketed Cu retort provided with a top and bottom outlet. The tabulated results show that the decompn. under various conditions of distn. depends chiefly on the nature of wood used. The leafy trees give a greater yield of acids. With an increased amt. of steam used the yields of useful products become greater. Under normal conditions of decompn. with steam, no gases or resins are formed. The chief products are H<sub>2</sub>O-sol. substances found in the distillate, and some nonvolatile residue obtained in vacuum distn. of the distillate. The percentage of aldehydes is independent of the nature of wood and varies with changes in the procedure of decompn. The form of wood and its degree of mech. disintegration have no effect on the yields of decompn. products. The yields of all products are increased with greater duration of the exothermic reaction at 270°. The method as compared with the destructive distn. without the use of steam gives a greater yield of useful decompn. products, viz., 100% increase in the yield of acids and an equal yield of McOil.</p>																																																			
<p>A yield of 40-53% of C was obtained at 310-34°. The influence of circulation of incompressible gases and tar on the process of destructive distillation of wood. S. P. Namkin, S. N. Vahitayev and M. F. Sanenkova. <i>Ibid.</i> 78-108.—European and American practices of forced recirculation of heated decompn. gases and tar in the process of destructive distn. of wood are discussed. Results similar to those of Swedish practice were obtained by exptl. distn. of birch by this method. Tables and curves are given.</p>																																																			
<p>Chas. Blanc</p>																																																			
<p>ASTM 15.4 METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			



[illegible]

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESS AND PROPERTIES INDEX																			
<p><i>Handwritten:</i> B-I-2</p> <p><i>Handwritten:</i> B-I-2</p> <p><b>Thermal decomposition of wood with superheated steam.</b> F. A. Bonnov (Leningrad, Russia, 1933, 4, No. 2, p. 15; ref. B. 1933, 659).--In distilling sawdust and wood chips up to 3 x 3 x 4 cm. with superheated steam the yield of acids is raised by 100%; gases and tars are not produced. The yield is less with wood in larger pieces, and decomp. products, tar, and gases are formed. Ctr. Ass. (c)</p>																			
<p><b>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</b></p>																			
1933-1934										1935-1936									
1937-1938										1939-1940									
1941-1942										1943-1944									
1945-1946										1947-1948									
1949-1950										1951-1952									
1953-1954										1955-1956									
1957-1958										1959-1960									
1961-1962										1963-1964									
1965-1966										1967-1968									
1969-1970										1971-1972									
1973-1974										1975-1976									
1977-1978										1979-1980									
1981-1982										1983-1984									
1985-1986										1987-1988									
1989-1990										1991-1992									
1993-1994										1995-1996									
1997-1998										1999-2000									

Decomposition products of lignin P. A. Babayev, I. I. Kolutova, and V. A. Zamyatina. ~~Example 1~~ Pine-wood sol. P. R. N. N. 18, 318 (RKS) in German. Pine-wood fiber in an aq. soln. was treated in an autoclave for 2 hrs. at 180°. Most of the pentosans went into soln. The undissolved residue contained cellulose (4), lignin (30) and pentosans (5-20%). Oxidation of the sol. material with H<sub>2</sub>O<sub>2</sub> in neutral soln. gave characteristic acids (4) which were sol. in H<sub>2</sub>O and insol. in Et<sub>2</sub>O and other H<sub>2</sub>O immiscible org. solvents. Oxidation of the insol. residue gave only cellulose. Lignin went into soln. completely. The Na salt mixt. of 4 gave 30% Na<sub>2</sub> Gluconate (H<sub>2</sub>), mucic and xylonic acids were identified. W. J. Peterson of the total acid concn.

ASAC 514 METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p><i>ca</i></p> <p>The hydroxy acids of wood tars of the leafy trees. P. A. Belov, M. F. Samenkova, V. A. Kurdyumova and R. I. Andreichikova. <i>Lesokhim. Prom.</i> 1950, No. 1, 32-4; <i>Khim. Referat. Zhur.</i> 1950, No. 7, 121. The tars and pitches of the Ashin and Velluga plants were emulsified with N alc. KOH on a water bath. The emulsified product was washed once with a mixt. of 50% alc. and benzene (1:4). The unsaponified substances of tar were extd. with petroleum ether (60°). After the removal of alc. in vacuo the saponified substance was dild. with water and decompd. in the presence of benzene with a 2% soln. of H<sub>2</sub>SO<sub>4</sub>. The filtered residue was extd. with benzene and the H<sub>2</sub>SO<sub>4</sub> was washed out with a satd. Na<sub>2</sub>SO<sub>4</sub> soln. and water. The contents of the hydroxy acids in the Ashin tar and pitch and the Velluga tar and pitch were, resp.: 41.50%, 57.84%, 37.90% and 70.57%. The acid nos. of the hydroxy acids were 144.5, 79.0, 129.3 and 90.0; the acetyl nos. 335.3, 380.0, 321.3 and 224.0; and the ether nos. 80.0, 130.0, 95.0 and 60.5. The content of</p> <p>hydroxy acids in pitch was considerably lower than that in tar, possibly, at the expense of the removal of the volatile substances from tar. The acid nos. of the hydroxy acids from pitch were lower than of those from tar, since during the distn. of the tars to soft pitch (m. 40°) part of the hydroxy acids were transformed into lactones, lactides, esters of amides and hydrocarbons. During the distn. of tar to hard pitch (m. 105°) the acid and ether nos. of the hydroxy acids of pitch decrease. The hydroxy acids from the Ashin tar are a sticky, dense mass resembling pitch. The hydroxy acids of the Velluga tar and pitch and of the Ashin pitch are a dark-brown powder. The acid, ether and acetyl nos. of the hydroxy acids of tar of the leafy trees are similar to those of the hydroxy acids of oxidized petroleum products. The hydroxy acids of the wood tars can be utilized for the same purposes as the hydroxy acids of petroleum.</p> <p style="text-align: right;">W. R. Henn</p>																			
<p>ASACSLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>GROUP 1</p>										<p>GROUP 2</p>									
<p>GROUP 3</p>										<p>GROUP 4</p>									

137 AND 138 REPT (S)	PROCESSES AND PROPERTIES INDEX	139 AND 140 REPT (S)
<div style="position: absolute; top: 10px; left: 10px; font-size: 24px; font-weight: bold;">B-2-5</div> <div style="position: absolute; top: 250px; left: 200px; background-color: black; color: white; padding: 5px; font-size: 12px;"> <p>Hydrogenation of waste indole (pale) vapors. F. A. Brown and L. E. Koserova (Trans. Acad. Sci. U.S.S.R., 1966, 24, 400-401). The waste vapors are distilled with H<sub>2</sub>O, reduced at 100° and then evaporated at 100°. The residue is then distilled at 100° and the residue is then distilled at 100°. The residue is then distilled at 100° and the residue is then distilled at 100°.</p> </div>		
ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION		
139000 SYMBOLOGY	139000 WIP ONE ONE	139000 WIP ONE ONE
139000 SYMBOLOGY	139000 WIP ONE ONE	139000 WIP ONE ONE

1ST AND 2ND EDITIONS										PROCESSING AND PROPERTY INDEX										3RD AND 4TH EDITIONS									
<div style="position: relative;"> <span style="font-size: 2em; font-family: cursive; position: absolute; left: 10px; top: 10px;">CA</span> <span style="position: absolute; right: 10px; top: 10px; font-size: 2em;">13</span> </div> <p><b>Study of break-down products of lignin.</b> P. A. Bobruy and L. I. Kolotova. <i>Compt. rend. acad. sci. U. R. S. S.</i> 24, 49-51(1930)(in English).—The present paper reports further work on the oxidation products of lignin (cf. C. A. 32, 3955<sup>r</sup>). The Ba salts of the hydroxy acids were evapd. and recrystd. giving a product of const. compn. contg. 53.43% Ba. This amt. corresponds to that in tartronic acid salt (53.8% Ba) and leads to the conclusion that lignin is of carbohydrate nature. Four g. of Ba salts was caused to react at 170-180° for 4 hrs. in sealed tubes with 30 ml. HCl (sp. gr. 1.19) and 1.4 g. red P. The mixt. was dild. with 3 vols. of H<sub>2</sub>O and ext'd with Et<sub>2</sub>O. The residue left after distg. off the Et<sub>2</sub>O was treated with 25% H<sub>2</sub>SO<sub>4</sub> and Zn dust in the cold and filtered. The filtrate was treated with PbCO<sub>3</sub> and Ag<sub>2</sub>O. It was then acidified and oxid. with Et<sub>2</sub>O. The residue had a characteristic odor of fatty acids. It was distd. into 4 fractions: (1) below 125°; (2) 125-165°; (3) 165-185° and (4) 185°. The Na salts of each of the fractions were converted into their p-bromophenacyl esters and recrystd. Fraction (1) was thus identified as AcOH, (2) and (3) were identified as butyric acid and (4) was identified as capronic acid. Glycolic acid was identified among the nonvolatile products of reduction. Lignin was also oxidized with 30% H<sub>2</sub>O<sub>2</sub> at room temp. in the presence of 2 N NaOH. On acidification of the aq. soln. a voluminous white flaky ppt. was obtained in a yield of 64-66% of the oxidized lignin. The H<sub>2</sub>O-sol. acids were similar to those obtained by the oxidation in neutral medium. The white ppt. gradually turned black on standing and lost its soly. in hot H<sub>2</sub>O, MeOH, EtOH, AcOH, Me<sub>2</sub>CO, and similar solvents. It could finally be dissolved only in aq. NaOH but regained the initial soly. characteristics on pptn. from its alk. soln. The substance was purified by repeated pptn. It melted with decompn. and gave a reaction for furane when heated. Na and Ba salts were obtained. The Br deriv., prep'd. by bromination in glacial AcOH soln. or of its Na salt in aq. soln., was sol. in MeOH, EtOH and in EtOAc. The substance had the following ultimate analyses: C 57.39, H 5.16 and OCH<sub>3</sub> 9.71%. The empirical formula is C<sub>11</sub>H<sub>12</sub>O<sub>4</sub>. Mark Plunguan</p>																													
ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION																													
23001-574-BLIVA															23001-574-BLIVA														
23001-574-BLIVA															23001-574-BLIVA														

BOBROV, P. F.

X Rays - Apparatus and Supplies

Modernization of the mobile hospital ward X-ray apparatus Ru-725,  
Vest.rent.i rad. No. 1, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

*Bo Brov, P. F.*

USSR/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae. R

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40635.

Author : Robrov, P. F., Okunyeva, V. V., Dudorova, Ye. P.  
Inst : State Scientific Control Institute of Veterinary Preparations.

Title : Use as Antigen of Banked Blood Crystal-Violet of Pest Afflicted Pigs.

Orig Pub: Tr. Gos. nauchno-kontrol'n. in-t po vetpreparatam, 1956, 6, 97-100.

Abstract: It was demonstrated that the swine pest virus, when processed through crystal-violet and inactivated in a thermostat at a 37-38° temperature for 20 days, for 14 days, and then not subjected to inactivation,

Card : 1/2



BOBROV, P.F.

Improved model of a portable X-ray machine. Vest. rent. 1 rad.  
33 no. 3:68-69 My-Je '58 (MIRA 11:8)  
(X RAYS--EQUIPMENT AND SUPPLIES)

BOBROV, P.F., vrach-rentgenolog

Modernization of the housing of slit diaphragm of the URDd-110-X-4-M-1a roentgen diagnostic apparatus. Vest. rent. 1 rad. 35 no. 5:67-69 S40 '60. (MIRA 13:12)

1. Iz Lutskey gorodskoy bol'nitsy Ministerstva zdravookhraneniya Ukrainskoy SSR.

(X RAYS—EQUIPMENT AND SUPPLIES)

BOBROV, P.I.

Rationalizer; designer of universal metal-cutting machine tool, experimental abrasives plant, RSFSR

Soviet Source: N: Radians'ka Ukraina No. 132, 7 June 51 Kiyev

BOBROV, P.S., polkovnik meditsinskoy sluzhby; DATSENKO, Ye.M., podpolkovnik meditsinskoy sluzhby; KLEYIN, E.G., kand. med. nauk, polkovnik meditsinskoy sluzhby; RATUSHNYY, Ye.A., polkovnik meditsinskoy sluzhby.

Healing of intestinal wounds in acute radiation sickness; experimental morphological studies. Voen. med. zhur. no.4:51-53 Ap '59.

(INTESTINES, wds. & inj.

(MIRA 12:8)

healing of exper. wds. in radiation sickness (Rus))

(RADIATIONS, eff.

same)

BOBROV, P.S.

Submerged acetylene generator of a gas-welding device. Rats. predl.  
no. 47:8-9 '59. (MIRA 14:4)

1. Dneprodzerzhinskoye stroitel'noye upravleniye tresta "Gidromekhanizatsiya,"  
(gas welding and cutting)

S/121/61/000/009/002/006  
D040/D113

AUTHOR: Bobrov, P.S.

TITLE: New machine tools of the Moscow Grinding Machine Plant

PERIODICAL: Stanki i instrument, no. 9, 1961, 24-27

TEXT: Moskovskiy zavod shlifoval'nykh stankov (Moscow Grinding Machine Plant) has started the production of new grinders to replace the obsolete "3816", "3756", "3724" and "3740". A whole range of automatic, semiautomatic and universal grinders will be produced - 3B816 (3B816), 3B724 (3B724), 3A724 (3A724), 3B740 (3B740), 3A740 (3A740), 3B756 (3B756) and 3B756 (3B756). The article contains the characteristics of a range of five spline grinders - 3A451 (3A451), 3П451 (3П451), 3451B (3451B), 3451B (3451B) and 3451B (3451B), two gear grinders - 586 and 586B (586B), and a surface grinder - 3B756 (3B756). The 3A451 is designed for grinding spline shafts in mass-production, e.g. in the automobile or tractor industry, or in large-lot production. It is fully automatic including loading and unloading operations, measurements in grinding processes, switchover from rough to finish operation and

Card 1/3

S/121/61/000/009/002/006  
D040/D113

New machine tools...

wheel dressing. It may be used in automatic transfer lines and accomodates shafts 35-125 mm in diameter and 200-500 mm in length, has 6 electric motors and a hydraulic drive. The workpiece dimensions are measured by a meter developed by **OKB** Mosgorsovnarkhoza (OKB of the Moscow City Sovnarkhoz). The semiautomatic 3P451 is a modification of the 3A451 for lot-output in any industries. It is automatic except for loading and unloading, and smaller than the 3A451. The production of the 3A451 and 3P451 has to start in 1962. The 3451, 3451B and 3451V are universal and destined for use in small-lot and piece production, can work with a single grinding wheel and with a wheel cluster, same as the automatic 3A451. The component units of the three spline grinders are alike except for the length of bed and table, pipelines, table drive cylinders and the protection of ways. The 586 gear grinder is for external spur gears. It is a copying machine controllable manually as well as automatically and accommodates gears 25 to 500 mm in diameter and up to 200 mm in width. One operator may work several such machines. The 586V is a semi-automatic grinder for internal spur gears 75-400 mm in diameter and up to 80 mm in width. The work accuracy of both gear grinders is 5th to 6th class by **POCT** 1643-56 (GOST 1643-56). The 586V includes two wheel dressing devices -

Card 2/3

New machine tools...

S/121/61/000/009/002/006  
D040/D113

for the periphery and sides, working automatically. The 3B 756 surface grinder has a round electromagnetic table 800 mm in diameter and a vertical spindle. It will replace the obsolete 3756 model, is designed for grinding flat surfaces and is suitable for lot or mass production of parts. The improvements over the 3756 grinder consist in dependable protection of ways, tight wheel head casing protecting the mechanism from steam and dust, fine feed, mechanical wheel head tilting in rough grinding, raising the work rate by 50%, automatic measurement of work dimensions in the grinding process, and automatic opening and closing of the table hood. There are 6 figures.

Card 3/3



BOBROV, P.S.

New machines manufactured at the Moscow Grinding-Machine  
Plant. Stan.1 instr. 32 no.9:24-27 S '61. (MIRA 14:8)  
(Moscow--Grinding machines)

BOBROV, P.S., polkovnik med.sluzhby; USENKO, A.G., kapitan med.sluzhby

Dosimetric control of protection against X rays by means of the  
"DKZ" dosimetric device. Sbor.nauch.trud.Kiev,okruzh.voen.gosp,  
no.4:345-352 '62. (MIRA 16:5)  
(RADIATION—DOSAGE) (X RAYS)

BOBROV, R.I., inzhener.

~~Construction of high dams in Switzerland. Gidr.stroi. 25 no.11:52-~~  
54 D '56. (MLRA 10:1)

(Switzerland--Dams)

BOBROV, R.I.

**AUTHOR:** Bobrov, R.I. Engineer 98-7-17/20

**TITLE:** Heavy Abutment Dam at Ben-Metir (Tunisia) (Massivno-kontrfors-naya plotina Ben-Metir (Tunis) )

**PERIODICAL:** Gidrotekhnicheskoye Stroitel'stvo, 1957, Vol. 26, No 7, pp 53-57 (USSR)

**ABSTRACT:** The Ben-Metir dam on the El-Lil river was constructed in 1948-1953 according to the plans of a well-known Swiss specialist in hydroelectric power plants, Alfred Stukki. This construction is an example of solving difficulties arising from poor base conditions, and is characteristic of present trends in dam construction: the use (in case of need) of stressed reinforcements at the base of the abutments, thus providing the possibility of regulating the settling of adjacent sections by means of "tying" and anchoring of the abutments to the base. Of great interest was the use of a deep-drainage system of the foundation. Geological conditions, as well as the absence of impermeable subsoil, barred the building of an earth dam as well as a concrete dam with a gravitational profile. There are 1 diagram, 1 table, 3 figures and 4 references, two of which are in English and two in French.

**AVAILABLE:** Library of Congress  
Card 1/1

~~BOBROW~~, R.I., Inzh.

Present-day tendencies in the construction of rock-fill dams abroad.  
Zhurnal. za rub. no. 4:35-42 J1-Ag '59. (MIRA 12:11)  
(Dams)

(

SOV/98-59-6-16/20

AUTHOR: Bobrov, R.I., Engineer

TITLE: The Priest-Rapids Hydraulic System on the Columbia River (USA)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 6, pp 50-53 (USSR)

ABSTRACT: This is the description of the above mentioned hydraulic system, translated and condensed from the periodical "Water Power" 1958, Nr 7 and Nr 8. There are 4 sets of diagrams and 2 photographs.

Card 1/1

30(1)

SOV/98-59-10-16/20

AUTHOR:

Bobrov, R.I., Engineer

TITLE:

Earth Dams With Earthwork Aprons

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 10, pp 52-63 (USSR)

ABSTRACT:

The article is a general account of the construction and planning of earth-fill dams, the use of which has become very widespread in the last 10 years in countries outside the USSR (e.g., Brownly and the Wolf-Creek). There are 8 diagrams, 6 tables, 3 graphs, and 7 non-Soviet-bloc references, 5 of which are American, 1 English, and 1 West German.

Card 1/1

BOBROV, R.I., inzh.

Construction of the Trangslet Dam. Gidr. 1 stroi. 30 no.5:51-54  
My '60. (MIRA 14:5)  
(Sweden--Dams)



LOREOV, R.I., inst.

Construction of the Roselend Dam (France). Gidr. stroi. 31 no.1:44-  
48 Ja '61. (III 14:2)

(Roselend Dam, France)

BOBROV, R.I., inzh.

Arch dam with built-in power house of a hydroelectric power  
station. Gidr. stroi. 31 no.7:51-56 J1 '61. (MIRA 14:7)  
(Monteynard, France--Hydroelectric power stations)

BOBROV, R.I., ingl.

Construction of dumped rockfill and placed rockfill dams. Gidr.  
stoi. 32 no.10:51-56 0 '61. (MIRA 14:10)  
(Dams)

BOBROV, R. I., inzh.

Construction of a thin multiple-arch dam in the high mountains  
(from "La technique des travaux." nos. 3-4, 1961). Gidr.  
stro1. 33 no.12:42-44 D '62. (MIRA 16:1)

(Lake Migouelou, France--Dams)

BOBRDV, R.I., insh.

Construction of arch dams in Switzerland. Gidr. stroi. 33  
no.2:52-55 F '63. (MIRA 16:4)

(Switzerland—Dams)

BOEROV, R.I., insh.

The building of the Glen Canyon Hydroelectric Power Station.  
Gidr.stroi. 33 no.4:51-54 Ap '63. (MIRA 16:4)  
(Glen Canyon Hydroelectric Power Station (United States))

BOBROV, R.I., inzh.

Causes of the collapse of the Malpasset Dam. Gidr.stroi. 34 no.  
11:49-53 N '63. (MIRA 17:3)

L 58978-65 EWT(m)/KPF(c)/EWP(j) Pc-L/Pr-L RM

ACCESSION NR: AP5014695

UR/0191/65/000/006/0050/0052  
678.01: 539.42

AUTHOR: Smushkovich, B. L.; Frenkel', M. D.; Mukhin, Ye. P.; Bobrov, S. L.; Matrosov, A. N.; Dvorkina, T. V. *Je B*

TITLE: New instrument for determining the brittle temperature of plastics *5*

SOURCE: Plasticheskiye massy, no. 6, 1965, 50-52

TOPIC TAGS: brittle point, polyvinyl chloride, plastic mechanical property, brittle temperature determination

ABSTRACT: The PKhP-1 instrument for determining the brittle temperature of plastics is described in detail. This instrument is designed for testing 10 specimens simultaneously under identical conditions, and thus the reproducibility of the results is greatly enhanced. It is also capable of operating under both static and dynamic conditions. The cooling system using liquid nitrogen is also described. The time required to bring the test specimen to any given temperature is reduced to a minimum both in heating and in cooling. The instrument is built as a table model (1140 mm long, 700 mm wide, 1330 mm high; weight 190 kg). As an example, the results of testing plasticized polyvinyl chloride under static

Card 1/2



L 58978-65

ACCESSION NR: AP5014895

and dynamic conditions are cited. The brittle temperature was calculated from the formula

$$T_x = T' + \Delta T \left( \frac{S}{100} - \frac{1}{2} \right)$$

where  $T_x$  is the temperature corresponding to the failure of 50% of the test samples;  $T'$  is the highest temperature at which all the samples fail;  $\Delta T$  is the selected temperature interval for consecutive tests (e.g., 2C); and  $S$  is the sum of the fractured samples from the temperature at which none of the samples failed up to  $T'$  inclusive. As expected, the results show that the brittle temperature is significantly affected by the rate of the applied mechanical action. The method and instrument employed yield highly reproducible data. Orig. art. has: 3 figures, 1 table, and 1 formula.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 005

OTHER: 000

Card 2/3 *dm*

BOBROV, S.M.

BODYAKIN, N.F., dotsent; MOZHAR, B.S., kandidat meditsinskikh nauk;  
YURKEVICH, A.Ya., kandidat meditsinskikh nauk; ~~BOBROV, S.M.~~,  
Mladshiye nauchnye sotrudniki; HUSYAYEVA, T.P.; KURBANOV; vrach;  
IVANOVA, V.P., fel'dsher.

Prevention of suppurative skin diseases among cotton workers.  
Vest.ven. i derm. no.4:16-18 J1-Ag '55. (MLRA 8:12)

1. Iz Turkmenskogo nauchno-issledovatel'skogo kozhno-venero-  
logicheskogo instituta (dir.-dotsent N.F.Bodyakin)  
(PYODERMA, prevention and control,  
in cotton workers)  
(OCCUPATIONAL DISEASES,  
pyoderma in cotton workers, prev.)

RODYAKIN, N.F., dotsent; MOZHAR, B.S., kand. med. nauk; YURKEVICH, A.Ya.,  
kand. med. nauk; BOBROV, S.M., mlad. nauch. sotr; RUSYAYEVA, T.P.,  
mlad. nauch. sotr; KURBANOV, A.K., trach; GADZHIYEV, M.G., vrach;  
VASIL'YEVA, O.A., sestra.

Use of adhesive tape caps in treating dermatomycosis under rural  
conditions in Turkmenia. Vest. ven. i derm. no.5:48-50 S-0 '55.  
(MLRA 9:1)

1. Iz Turkmenskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir.-dotsent N. F. Rodyakin).

(SKIN, diseases,

fungus dis., ther. use of adhesive tape cap in rural  
conditions in Russia)

(RURAL CONDITIONS,

in Russia, ther. of fungus dis. of skin, use of adhesive  
tape cap)

(BANDAGING AND DRESSING,

adhesive tape cap, use in ther. of fungus dis. of skin  
in rural conditions in Russia)

BOEROV, S. N.

Sbornik zadach po chercheniiu /Collection of problems in mechanical drawing/.  
Pod red. P. A. Bologova. Posobie dlia uchitelei. Moskva, Uchpedgiz, 1952. 120 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 3, June 1954.

BOBROV, S.N.

The Volga Delta and its future. Geog. v shkole no.3:10-12 My-Je '53.  
(MLRA 6:6)  
(Volga Delta)

MPOLLOV, B.A.; BOHROV, S.N., redaktor; DOBRONRAVOVA, A.O., redaktor;  
MEYER, I.L., redaktor; POLYAKOVA, T.V., tekhnicheskii redaktor.

[The Caspian Sea and its basin] Kaspiiskoe more i ego bassein.  
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APOLLOV, Boris Aleksandrovich; BOBROV, Semen Nikodimovich; KRAVETS, A.L.,  
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shore of the Caspian Sea and their future. Trudy Okean. kom.  
5:23-36 '59. (MIRA 13:6)  
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BOBROV, S.N.

Investigation with models and calculation of wind load capacities  
of offshore oil field installations. Neft. khoz. 39 no.5:20-25  
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(Oil well drilling, Submarine)  
(Wind pressure)

BOEROV, S.N.

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of the Azerbaijan S.S.R. Izv. AN SSSR. Ser. geog. no.4:128-131  
Jl-Ag '62. (MIRA 16:5)  
(Azerbaijan—Water resources development—Congresses)

SEDEL'NIKOV, G.S., doktor khim.nauk; BUYNEVICH, D.V.; BOBROV, S.N.,  
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(Kara-Bogaz-Gol (Gulf)—Salts)

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APOLLOV, B.A., prof.; BOBROV, S.N., kand.geograf.nauk

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1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova  
(for Apollov). 2. Institut geografii AN SSSR, Moskva (for  
Bobrov).

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BOBROV, Sergey Pavlovich; VESELOVSKIY, I.N., prof., nauchnyy red.;  
MIKOYAN, E.P., otv. red.; PERTSEVA, T.V., tekhn. red.

[An Archimedian summer, or the story of a friendly group of  
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stva iurykh matematikov. Moskva, Detgiz. Book 2. 1962. 327 p.  
(Mathematics--Juvenile literature) (MIRA 15:11)

BOBROV, S.P.

Geology of the Ergon ultrabasite massif in the Western Sayan  
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1. Minusinskaya kompleksnaya ekspeditsiya.



BOBROV, V.

Unseed hand. Sov. shakht. 12 no.6:20 Je '63. (MIRA 16:9)  
(Coal mining machinery) (Radioisotopes—Industrial applications)  
(Automatic control)

BOBROV, V.; MARKHEL', I., red.; FREYMANIS, V., tekhn. red.

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BOBROV, V. (Lugansk)

Make automatic control equipment reliable and durable. Sov.shakht.  
12 no.12:26-27 D '63. (MIRA 17:3)

L 31327-65 ENT(d)/EWP(h)/EWP(1)

ACCESSION NR: AP4047607

S/0193/64/000/010/0023/0024

AUTHOR: Bobrov, V. A.

TITLE: Magnetoelectric thickness gage-ferritometer TF-1 <sup>14</sup> <sub>76</sub> // B

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 10, 1964, 23-24

TOPIC TAGS: thickness gage ferritometer, magnetoelectric thickness gage, magnetoelectric ferritometer, cladding thickness measurement

ABSTRACT: A thickness gage-ferritometer was developed at the NIIkhimmash (Scientific Research Institute of Chemical Machinery) which could be used for measuring the thickness of non-magnetic or weakly magnetic coatings on a magnetic base material or for determining the ferrite content (up to 5%) in austenitic steel. The working element of the apparatus is an outlying pickup (containing a magnetoelectric system with a portable magnet fastened onto a jack and balanced in space by a spiral coil) which comes directly in contact with the article at the time of measurement. The thickness of a non-magnetic cladding is determined

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ACCESSION NR: AP4047607

from a graduated graph. For weakly magnetic materials two pickups are used, one of which is graduated according to the ferrite content of the cladding material. Thicknesses of 0.5-8 mm coatings can be determined within  $\pm 2.5\%$  using 2 pickups--one for 1.5-9 mm thicknesses and the other for the thinner claddings and for determining the ferrite content in thicker layers. The determinations must be made in surroundings having only weak external magnetic fields on samples containing  $<5\%$  ferrite. Corrections must be made for readings on flat objects  $<35 \text{ mm}^2$  and cylindrical surfaces  $<25 \text{ mm}$  in diameter. Orig. art. has: 1 figure

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, EM

NR REF SOV: 000

OTHER: 000

Card 2/2

SHATALOV, Ye.T., otv. red.; BOBROV, V.A., red.; KOTLYAR, V.N.,  
red.; TVALCHRELIDZE, G.A., red.; SHCHEGLOV, A.D., red.

[Problems of metallogeny] Voprosy metallogenii. Moskva,  
Nedra, 1965. 257 p. (Mezhdunarodnyi geologicheskii  
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(MIRA 18:5)

1. Natsional'nyy komitet geologov Sovetskogo Soyuza.

BOEROV, V.A.

The TF-1 magnetoelectric device for measuring thickness and ferrite content. Biul.tekh.ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn. inform. 17 no. 10:21-24. 0 '64.

(MIRA 18:4)

20-114-3-43/60

**AUTHORS:** Bobrov, V. A., Neyburg, M. F.

**TITLE:** Upper Permian Coal Deposits of Southern Mongolia (O verkhne-permskikh ughenosnykh otlozheniyakh Yuzhnoy Mongolii)

**PERIODICAL:** Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 3, pp. 609-612 (USSR)

**ABSTRACT:** Until very recently no data were available as to deposits of Paleozoic coal in the wide South Gobi area of the Mongolian People's Republic. Worse, still, in general surveys this area was listed among the territories where no coal could be expected. Therefore recent information on deposits of coal, dating back to the Upper Paleozoic, together with related stratigraphic questions, certainly merit wide interest. Such deposits were discovered in the depression of Tabun-Tologoy, not far from the Ulan-Nur Lake, approximately 600 km south of Ulan-Bator. In 1940, Pomazkov classified the quality of this coal as high, and the layers were assumed to belong to the Jurassic period. In 1954, Shevelev conducted a geological investigation of the area and estimated the extension of the carbonaceous layers as about 200 - 250 km<sup>2</sup>. The sporepollen analysis of his samples had the following result: 75,5 % fern-

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## Upper Permian Coal Deposits of Southern Mongolia

like plants, and 13,5 % Cycadaceae and Ginkgoaceae. This spore-pollen complex is similar to that of the upper half of the Yerunakovskaya suite in the Kuznetsk basin and to that of the upper parts of the Narylkovskaya suite in the Minusinsk basin, the age of which is considered to belong to the Upper Permian period. Also remains of plants support this assumption. In 1955, this area was visited twice by Bobrov who compiled a comprehensive cross section through this mass and also collected, layer by layer, from the base onwards, the flora and samples for spore-pollen analysis. It was determined that the carboniferous area was much larger than previously assumed. The cross section leads through a rather variously composed terrigenous complex of rocks. The frequent change of lithological units in vertical direction is characteristic. The mass rests on rocks of the Medium and Upper Paleozoic, with the latter being characterized by a rich Lower Permian brachiopod fauna. Approximately seventeen giant coal deposits alternate with sandstones, aleurolites and argillites. The thickness of the carboniferous mass amounts to about 1000 m. Investigation of the spore-pollen complex more or less confirms the results obtained in 1954. In addition, 37

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species of plants were determined, some of them new. It is possible to recognize a connection with the floras of the Upper Paleozoic period of Europe. The main basis are the Cordaites, many Pecopteris, several very characteristic Callipteris, and from the shaft stalks usually well preserved Paracalamites. In its elementary composition, Tabun-Tologoyanskaya flora is rather complex. On the one hand, elements exist which are characteristic of the Western part of the Angarida, (Kuznetskiy, Tungusskiy and Pechorskiy basins), whereas, on the other hand, there are forms which so far had been known only from the Upper Permian period in the Far East. The elements of Mesozoic appearance as found here do not offer any ground for assuming the existence of Mesozoic layers. As a result of comparative investigations, Tabun-Tologoyanskaya flora as a whole should be classified as belonging to the Kuznetsko-Tungusskaya type. The paper under review also discussed relationships between this Mongolian flora and the flora of the Nan-Shan Mountains, as well as the paleogeographical processes under which this flora has developed. This flora is of profound interest for the purpose of further

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discussing and clarifying paleogeographical questions, the boundaries of its occurrence, and the kind of the contacts between the floras of the Upper Paleozoic period of the Kuznetsko-Tunguskiy type and the Kataziatskiy type. There are 1 figure and 6 references, 4 of which are Soviet.

ASSOCIATION: Geological Institute, Academy of Sciences of the USSR  
(Geologicheskiy institut Akademii nauk SSSR).  
Eastern Expedition of the Ministry of Geology and Protection  
of the USSR mineral resources.  
(Vostochnaya ekspeditsiya Ministerstva geologii i okhrany  
nedr SSSR)

PRESENTED: December 17, 1956, by N. S. Shatskiy, Member of the Academy

SUBMITTED: December 15, 1956

Card 4/4

BAIDAN, S.; BOBROV, V.A.; MARINOV, N.A.

Earthquake on December 4, 1957 in the Gobi Altai, the Mongolian  
People's Republic. Sov.geol. 1 no.11:131-146 N '58.

(MIRA 12:4)

1. Ministerstvo geologii i gornoy promyshlennosti Mongol'skoy  
Narodnoy Respubliki. Vsesoyuznyy nauchno-issledovatel'skiy  
institut gidrogeologii i inzhenernoy geologii.  
(Altai Mountains--Earthquakes)

BOBROW, V.A.

Pre-lower Devonian folding in eastern Mongolia. Sov. geol. 4  
no.4:137-139 Ap '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Mongolia—Folds(Geology))

BOBROV, V.A.

Recent data on lower Devonian deposits of eastern Mongolia. Dokl.AN  
SSSR 138 no.2:419-421 My '61. (MIRA 14:5)

1. Geologorazvedochnoye upravleniye pri Sovete Ministrov Mongol'skoy  
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institut Ministerstva geologii i okhrany neдр. Predstavleno akademikom  
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BOBROV, V.A.; MODZALEVSKAYA, Ye.A.

Middle Devonian deposits in the extreme northeast of Mongolia.  
Dokl. AN SSSR 141 no.4:929-930 D '61. (MIRA 14:11)

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akademikom D.V. Nalivkinym.  
(Choibalsan region, Mongolia—Geology, Stratigraphic)

BOBROV, V.A.

Age of tungsten and molybdenum mineralization in the Yugodzyr region. Geol.rud.mestorozh. no.3:47-58 My-Je '62. (MIRA 15:6)

1. Geologorazvedochnoye upravleniye pri Sovete Ministrov Mongol'skoy Narodnoy Respubliki i Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad.

(Yugodzyr region--Tungsten ores)

(Yugodzyr region--Molybdenum ores)

(Geological time)



BOBROV, V.A.; POLEVAYA, N.I.; SPRINTSSON, V.D.; TIKHOMIROV, N.I.

Age groups of intrusive rocks in Transbaikalia and eastern Mongolia  
based on geological data and the results of absolute age determination.  
Sov.geol. 6 no.3:94-112 Mr '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
i Geologorazvedochnoye upravleniye pri Sovete Ministrov Mongol'skoy  
Narodnoy Respubliki.

(Transbaikalia—Geological time)

(Mongolia—Geological time)

BOBROV, V. A.

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PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

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Materials of the Third Ural Conference (Cont.)

110  
SOV/6181

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

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Sherstkov, Yu. A., and L. F. Maksimovskiy. Investigation of the dependence of the total intensity of spectral lines on the concentration of elements in an arc-discharge plasma

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Materials of the Third Ural Conference (Cont.)

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- Bobrov, V. A., Ye. N. Chernoguz, and T. N. Yaroslavova. Application of "fractional exposure" method for spectral analysis of alloy cast irons and aluminum alloys 66
- Matyugina, I. V. Spectral analysis of silicon brasses by the calculated graph method. 67
- Obukhova, Ye. S., and N. K. Rudnevskiy. Application of electrotransfer in plotting calibration graphs according to a single standard in the spectral analysis of alloys 68
- Taganov, K. I. Spectroscopic investigation of features of contact-electrospark erosion of metals and alloys 70

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